Hologram security stickers

User guide

rev. 1.4

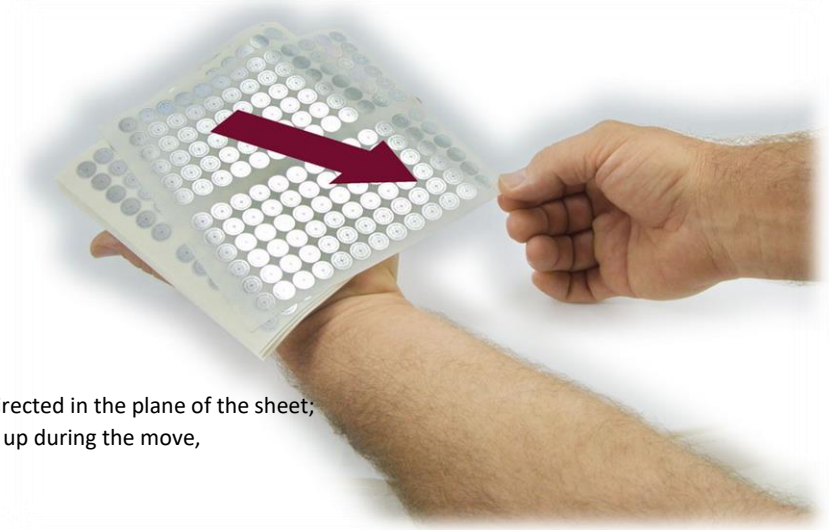
I. Manipulation with sheets

Defaultly, the hologram self-adhesive security stickers are delivered on waxed sheets. The adhesive´s as well as sticker´s properties require more attention when each sheet is being taken from the package, as the two adjacent sheets can easily be glued to each other. This phenomenon is caused by extrusion of a slight part of the adhesive outside the edge of the stickers and potentially by the glue adhesion to the adjacent sheet. The higher quality requirements and the associated greater thickness of the adhesive layer of safety elements are one of the input parameters in the sticker production. Thus the described phenomenon may occur, when stored in certain conditions.

If you take the sheet by grabbing the corner and splitting the sheet (the way you turn the page in the book), some of the stickers placed on the **lower sheet will remain glued on the back of the separate sheet**. It is necessary to take the sheets in another way:

1. **Grip the sheets firmly between** your hands and turn the upper palm to safely release the upper sheet with the stickers.

2. Grab the released sheet **for the corner and pull it off** the sheet below it.



The strength to be directed in the plane of the sheet;
The arch is not lifted up during the move,

so will be slipped from the lower sheet.

II. Stickers storing

The long-term storage of the self-adhesive sheets is possible only at temperatures between 10-25 °C while the relative humidity has to be between 40-70%. The sheets must be placed in impermeable (e.g. PE) closed bag. The sticker storing out of the specified temperature range causes the acceleration of adhesive properties degradation, the result will be more difficult application and decreased sticker´s adhesion. **The flat sheets** with labels **must not be heavily weighted down** as the heaviness causes slow extrusion of the adhesive out of the outline of a sticker and gluing the sheets to each other, this is making it difficult to apply. However, if the sheets are not pressed by any flat object during the storage, it may happen that they might be bent and thus the particular sheets separation is becoming more difficult. The ideal way of storage the flat arch is **to weight them down by a lightweight flat object** such as a wooden plate or a book. The thickness of the weighted stack of paper should not be more than 4 cm. The labels must not be facing the freezing temperature, even for a short time. In such case the glue can be over dried and the adhesion is completely lost then. The mentioned conditions are applicable only for the storage, not for the already applied stickers.

For safety sheets supplied on **curved surface**, the following warning applies:

Due to technology and process used in sticker production, it is necessary to store them in the same state as they were taken over. The particular sheets must not be flatten (e.g. by weighted down on the flat surface). The curvature is set by the radius of cylinders on which the stickers were heat treated. They do not show any curvature after removing from the paper layer; vice versa the flattening of stickers during their storage may cause the loss of adhesive contact with the substrate followed by drying of the glue.

Even with the proper storage, the service life of the glue is not unlimited; the adhesion properties remain the same within one year since its production. We highly recommend the application of all the labels until two years since their production.

III. Removing the stickers from the carrier waxed layer and their application

The production process of security destructive labels follows the requirements for their behaviour when attempting to peel them off. As a result, the cohesion (the consistency of the particular layers of stickers) is much smaller than the adhesion (cohesion with the surface). As the consequence, there might be difficulties during removing the sticker from carrier layer, as well as an issue with its damage when it is transferred to the final application place.

It is necessary to bend the carrier sheet for peeling the sticker of and to remove its edge by nail or **tweezers**. When the nail removal is preferred, it might happen that the hologram sticks to your fingertip, which is followed by damage of the aluminium layer and the “destructive” function of the safety label reveals. Already when the sticker is glued, the hologram damage can be seen as if somebody attempted to peel it off. The cause of such cases is usually too dry skin of a fingertip, which manipulates with the sticker; we recommend using an Indulona or similar cream to your hands especially to your fingertips. If you glue the stickers occasionally only, the moistening of the fingers before application is sufficient.

The best (in case of some type of stickers also the only one) solution is using the tweezers. It is more reliable and accurate not only to peel the sticker off the sheet, but also to stick it exactly to intended position. The tweezers must have the most pointed end. One of the most suitable tweezers offered by us is here: http://www.hotair.cz/detail/pomucky-pro-praci-naradi-sw/pinzety/univerzalni-pinzeta-presna-nerezova-s-prodlouzenymi-hroty-aaa-14.html

It is necessary to stick the labels at temperatures between 10-25 °C

While keeping up the relative humidity between 40-70 %.

IV. Surfaces and their cleaning

The hologram stickers generally have the best adhesion to smooth surfaces. The ideal surface for them is glass and polished stainless steel. Of course, assuming it is not greasy. Vice versa the most complicated surfaces for sticking them are roughened plastics. Firstly due to roughening, the contact surface is significantly reduced and secondly the surface is not degreasable in long-term view. The grease on the surface is caused by gradual depolymerisation of the plastic material. For these surfaces, a self-adhesive sticker's production process with significantly thicker adhesive layer is optionally available.

The surface of standard non-glazed paper (office paper …) has its own specific features regarding the sticker application. It is an absorbent surface, so sticker´s adhesion is changing during the first hours after gluing. Some of the stickers may be removed without any damage in short time after sticking. However they will have very good adhesion later then. The problematic part, on the other hand, can be low cohesion of the pulp paper itself. The glue on the label is very well bonded with the paper and when attempting to remove it a part of the paper layer is teared with it. As a result you can see the visibly damaged paper, but a de facto undamaged sticker with a pulp layer teared from the paper sticked at the backside of the sticker. Therefore, we are not always able to get the expected effect on the paper, which is significant while removing the sticker from smooth surface. if this function is crucial for you, it would be necessary to change the kind of paper or to try the stickers with VOID layer. The phenomenon described is not showed on smooth glossy paper and its surface properties are rather similar to plastic material. However, we also highly recommend using the VOID stickers on it.

The greasy surfaces are necessary to be cleaned by technical solvents such as technical petrol, acetone or IPA (**offering http://www.hotair.cz/detail/chemie/k-cisteni/ipa-isopropyl-alkohol-vysoke-cistoty-sprej-600ml.html**).

The chemicals must be suitably chosen with regard to possibility of etching the treated area. One of the strongest agents for degreasing is Tetrachlormethane (tetrachlor) that might be suitable for cleaning the surface from petroleum products in industry. For all substance, it is necessary to follow the safety precautions during the work.

The label´s adhesion to the surface is gradually increasing and the maximum adhesion **is achieved only after a few hours.** This is significant especially when gluing **to absorbent surface**, such as **paper or wood**.

All security stickers are able to withstand the heat profile of the laser printer. Any documents with the stickers as well as the stickers themselves can be printed by laser printing.

! The stickers of smaller dimensions (up to approx. 1.5 cm) **will not be fixed to** absorbent surface, if they are bent **at the right angle** – e.g. **over the edge** of paper boxes.

When **pasted over the gaps** on the devices´ chassis or boxes, there must be **at least 80% of the sticker surface in contact with the continuous surface** of the carrier layer; a maximum of 20% may overlap the gap.

V. How to remove the sticker

After removing the security sticker, the glue residues remain on the surface. The glue consist of various chemical substances such as rubber, acrylic, stabilizers, which are mechanically very difficult to be removed. It is necessary to use solvents, from which a petrol cleaner is well experienced. The solvents should always be applied after the label removal, not to be applied on it. The chemical substance must be chosen appropriately with regards to possibility of etching the treated area.

Each of the eventual substances will always dissolve only one of the adhesive ingredients. This is why it is suitable to use a mixture of solvents for this purpose:

http://www.hotair.cz/detail/chemie/k-cisteni/odstranovac-lepidla-zbytku-ze-samolepek-sprej-450ml.html

The glue and residue remover from stickers in 450 ml spray.

It is an ideal for easy and immediate removal of glue residues from stickers, labels, adhesive tapes and other grease. Most producers save in the wrong place and place the residual stickers on visible parts of their products, where their customer are trying to remove them, but this rarely happens without remaining the adhesive part of the sticker on the product itself. The cleaning of this residual glue is almost impossible by the standard cleaning substances and the product´s surface is often scratched by the cleaning. Thanks to this adhesive residue cleaner, it can be done quickly and elegantly without scratching the cleaned surface. Only apply the remover on the glue and wait for few seconds. The spray will dissolve it and then it is easy to wipe it off by a soft cloth.

Eligible to all households for removing the stickers and price tags from the bought products.

Applicable for these surfaces: aluminium, steel, glass, plastic, automotive colours, majority of rubber surfaces
Gentle to nature and skin harmless
Volume: 450ml